

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

THIS PAGE BLANK (USPTO)

=> fil capl; d que 114; d que 115; s 114 or 115; fil medl; d que 128; fil wpids; d que 136; d que 137; d que 145; s 136 or 137 or 145

FILE 'CAPLUS' ENTERED AT 15:43:17 ON 14 APR 1999
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
 COPYRIGHT (C) 1999 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications.

FILE COVERS 1967 - 14 Apr 1999 VOL 130 ISS 16
 FILE LAST UPDATED: 14 Apr 1999 (19990414/ED)

Inventors

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

L1	340 SEA FILE=CAPLUS ABB=ON	CHATTERJEE M?/AU
L2	47 SEA FILE=CAPLUS ABB=ON	FOON K?/AU
L10	1585 SEA FILE=CAPLUS ABB=ON	CHATTERJEE S?/AU
L11	4218 SEA FILE=CAPLUS ABB=ON	?IDIOTYP?
L12	25 SEA FILE=CAPLUS ABB=ON	(L1 AND (L2 OR L10)) OR (L2 AND L10)
L13	24 SEA FILE=CAPLUS ABB=ON	L11 AND (L1 OR L2 OR L10)
L14	10 SEA FILE=CAPLUS ABB=ON	L12 AND L13

L1	340 SEA FILE=CAPLUS ABB=ON	CHATTERJEE M?/AU
L2	47 SEA FILE=CAPLUS ABB=ON	FOON K?/AU
L5	4 SEA FILE=CAPLUS ABB=ON	11D10
L7	4 SEA FILE=REGISTRY ABB=ON	192727-42-7 OR 192727-41-6 OR 192727-43-8 OR 192727-44-9
L8	2 SEA FILE=CAPLUS ABB=ON	L7
L10	1585 SEA FILE=CAPLUS ABB=ON	CHATTERJEE S?/AU
L15	3 SEA FILE=CAPLUS ABB=ON	(L1 OR L2 OR L10) AND (L5 OR L8)

L46 11 L14 OR L15

FILE 'MEDLINE' ENTERED AT 15:43:26 ON 14 APR 1999

FILE LAST UPDATED: 13 APR 1999 (19990413/UP). FILE COVERS 1966 TO DATE.

MEDLINE has been reloaded to reflect the annual MeSH changes made by the National Library of Medicine for 1999. Enter HELP RLOAD for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE SUBSTANCE IDENTIFICATION.

L21	184 SEA FILE=MEDLINE ABB=ON	CHATTERJEE M?/AU
L22	173 SEA FILE=MEDLINE ABB=ON	FOON K?/AU
L23	934 SEA FILE=MEDLINE ABB=ON	CHATTERJEE S?/AU
L26	2 SEA FILE=MEDLINE ABB=ON	11D10
	Search by Barb O'Bryen, STIC 308-4291	

L28 1 SEA FILE=MEDLINE ABB=ON ((L21 OR L22 OR L23)) AND L26

FILE 'WPIDS' ENTERED AT 15:43:27 ON 14 APR 1999
COPYRIGHT (C) 1999 DERWENT INFORMATION LTD

FILE LAST UPDATED: 12 APR 1999 <19990412/UP>

>>>UPDATE WEEKS:

MOST RECENT DERWENT WEEK 199914 <199914/DW>

DERWENT WEEK FOR CHEMICAL CODING: 199914

DERWENT WEEK FOR POLYMER INDEXING: 199914

DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> D COST AND SET NOTICE DO NOT REFLECT SUBSCRIBER DISCOUNTS -
SEE HELP COST <<<

L31 11 SEA FILE=WPIDS ABB=ON CHATTERJEE M?/AU
L32 6 SEA FILE=WPIDS ABB=ON FOON K?/AU
L33 56 SEA FILE=WPIDS ABB=ON CHATTERJEE S?/AU
L34 2 SEA FILE=WPIDS ABB=ON 11D10
L35 109 SEA FILE=WPIDS ABB=ON ?12020
L36 2 SEA FILE=WPIDS ABB=ON ((L31 OR L32 OR L33)) AND (L34 OR L35)

L31 11 SEA FILE=WPIDS ABB=ON CHATTERJEE M?/AU
L32 6 SEA FILE=WPIDS ABB=ON FOON K?/AU
L33 56 SEA FILE=WPIDS ABB=ON CHATTERJEE S?/AU
L37 6 SEA FILE=WPIDS ABB=ON (L31 AND (L32 OR L33)) OR (L32 AND L33)

L31 11 SEA FILE=WPIDS ABB=ON CHATTERJEE M?/AU
L32 6 SEA FILE=WPIDS ABB=ON FOON K?/AU
L33 56 SEA FILE=WPIDS ABB=ON CHATTERJEE S?/AU
L43 33 SEA FILE=WPIDS ABB=ON (MILKFAT OR MILK FAT) (W) GLOBUL?
L45 2 SEA FILE=WPIDS ABB=ON ((L31 OR L32 OR L33)) AND L43

L47 6 L36 OR L37 OR L45

=> dup rem 138,146,147

FILE 'WPIDS' ENTERED AT 15:43:42 ON 14 APR 1999
COPYRIGHT (C) 1999 DERWENT INFORMATION LTD

FILE 'CAPLUS' ENTERED AT 15:43:42 ON 14 APR 1999

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

=> dup rem 128,146,147

FILE 'MEDLINE' ENTERED AT 15:44:25 ON 14 APR 1999

FILE 'CAPLUS' ENTERED AT 15:44:25 ON 14 APR 1999
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 1999 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIDS' ENTERED AT 15:44:25 ON 14 APR 1999

COPYRIGHT (C) 1999 DERWENT INFORMATION LTD

PROCESSING COMPLETED FOR L28

PROCESSING COMPLETED FOR L46

Search by Barb O'Bryen, STIC 308-4291

PROCESSING COMPLETED FOR L47

L48 11 DUP REM L28 L46 L47 (7 DUPLICATES REMOVED)

=> d ibib ab 148 1-11; fil hom

L48 ANSWER 1 OF 11 CAPLUS COPYRIGHT 1999 ACS DUPLICATE 1
 ACCESSION NUMBER: 1999:7858 CAPLUS
 DOCUMENT NUMBER: 130:65236
 TITLE: Methods of delaying development of HMFG-associated tumors using anti-idiotype antibody
11D10
 INVENTOR(S): Chatterjee, Malaya; Foon, Kenneth A.
 PATENT ASSIGNEE(S): The University of Kentucky Research Foundation, USA
 SOURCE: PCT Int. Appl., 54 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9856419	A1	19981217	WO 98-US12250	19980612
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 97-49540 19970613

AB The present invention provides methods of delaying development of human milk fat globule or HMFG-assocd. tumors using the anti-idiotype antibody 11D10, particularly in high-risk individuals having low tumor burden. Aluminum hydroxide is used as immune adjuvant.

L48 ANSWER 2 OF 11 CAPLUS COPYRIGHT 1999 ACS
 ACCESSION NUMBER: 1998:189813 CAPLUS
 DOCUMENT NUMBER: 128:307266
 TITLE: Molecular mimicry of carcinoembryonic antigen by peptides derived from the structure of an anti-idiotype antibody
 AUTHOR(S): Chatterjee, Sunil K.; Tripathi, Pulak K.; Chakraborty, Mala; Yannelli, John; Wang, Haito; Foon, Kenneth A.; Maier, Curtis C.; Blalock, J. Edwin; Bhattacharya-Chatterjee, Malaya
 CORPORATE SOURCE: Department of Internal Medicine, Division of Hematology and Oncology, University of Kentucky Medical Center, Lexington, KY, 40536-0096, USA
 SOURCE: Cancer Res. (1998), 58(6), 1217-1224
 CODEN: CNREA8; ISSN: 0008-5472
 PUBLISHER: American Association for Cancer Research
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB The authors' goal was to use carcinoembryonic antigen (CEA) as a target for immunotherapy in CEA-pos. cancer patients who are all immune tolerant to the native antigen. The authors isolated and characterized an antiidiotype monoclonal antibody 3H1, which mimics a distinct and specific epitope of the Mr 180,000 CEA and can be used as a surrogate for CEA. In Phase Ib clin. trials in a group of 23 advanced colorectal cancer Search by Barb O'Bryen, STIC 308-4291

patients, 3H1 induced both humoral and cellular anti-3H1 responses, as well as anti-CEA immunity. To study the cellular immunity invoked by 3H1 at the mol. level, the authors cloned and sequenced the cDNAs encoding the variable heavy and light chains of 3H1 and deduced the amino acid sequences of the encoded proteins. To identify any crossreactive peptides of 3H1 and CEA, the authors compared the amino acid sequences of 3H1 with those of CEA and found several regions of homol. in 3H1 heavy and light chain variable domains, as well as in the framework regions. To search for potential cross-reactive T-cell epitopes, a no. of peptides were synthesized based on 3H1/CEA homol. and were used as stimulants in cell proliferation assays, using peripheral blood mononuclear cells from a group of 3H1-immunized CEA-pos. cancer patients in the adjuvant setting. Two partially homologous peptides, designated LCD-2 (from 3H1) and CEA-B (from CEA), were identified in 10 of 21 adjuvant patients by strong proliferation responses (stimulation index, 3-50-fold), which were extensively studied in 5 of these individuals over an extended period of time (12-24 mo). The authors saw no correlation with the MHC class I haplotype of the patients. Anal. of the subtype of the responding T cells demonstrated that primarily CD4+ T cells were stimulated by both 3H1 and 3H1-derived peptides. Interleukin 2, interleukin 4, and IFN-.gamma. were assayed in the culture medium of peripheral blood mononuclear cells stimulated with 3H1, CEA, and LCD-2 to det. the T-cell helper subset induced by these stimulants. The in vitro responses were mainly assocd. with secretion of IFN-.gamma., which suggested that the induced T cells were most likely CD4+ Th1 type. Future studies will include the design of second-generation LCD-2 and CEA peptides to further enhance antigenicity, to characterize the responding T-cell populations more fully, and to test refined peptides for immunogenicity.

L48 ANSWER 3 OF 11 CAPLUS COPYRIGHT 1999 ACS

ACCESSION NUMBER: 1998:765527 CAPLUS
DOCUMENT NUMBER: 130:123585
TITLE: Antigen mimicry by an anti-**idiotypic**
antibody single chain variable fragment
AUTHOR(S): Tripathi, P. K.; Qin, H.; Deng, S.; Xu, C.;
Bhattacharya-Chatterjee, M.; Foon, K. A.;
Chatterjee, S. K.
CORPORATE SOURCE: Department of Internal Medicine, Division of
Hematology and Oncology and The Lucille Parker Markey
Cancer Center, University of Kentucky Medical Center,
Lexington, KY, 40536-0096, USA
SOURCE: Mol. Immunol. (1998), 35(13), 853-863
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB For the therapy of cancer patients whose disease is pos. for Carcinoembryonic Antigen (CEA), we developed an active specific immunotherapy based on the **idiotypic** network. The anti-**idiotype** monoclonal antibody (mAb), 3H1 was generated by immunization of mice with the anti-CEA mAb, 8019. 3H1 mimics CEA both functionally and structurally and acts as a surrogate for CEA. To define the min. structural requirements for antigen mimicry by 3H1, we constructed plasmid vectors for expression of single chain Fv (scFv) variants of 3H1 in Escherichia coli. Variable heavy (VH) and variable light (VL) chain domains of 3H1 were linked by a 15 amino acid linker (Ln), (Gly4Ser)3 in two constructs, VH-Ln-VL and VL-LnVH. Ln was omitted in two constructs, VH-VL and VL-VH. Each of the scFv constructs has a tag of six His [(His)6 tag] for purifn. by metal chelate affinity chromatog. and detection by enzyme-linked immunoabsorbent assay (ELISA). Comparisons of the binding of 8019 to purified scFv proteins by ELISA and immunoblot expts. showed that only VH-Ln-VL had significant activity. VH-Ln-VL also

Search by Barb O'Bryen, STIC 308-4291

showed max. inhibition of binding of 8019 to CEA. Immunization of mice with naked VH-Ln-VL and VH-Ln-VL conjugated to keyhole limpet hemocyanin induced anti-CEA antibodies in mouse sera. Sera from immunized mice inhibited the binding of 8019 to 3H1 as well as CEA. Induction of anti-CEA antibodies in the immunized mice was confirmed by flow cytometric anal. using CEA pos. MC-38cea cells. These results demonstrate that for antigen mimicry of 3H1 scFv, the presence of Ln is necessary and the domain order should be VH followed by VL.

L48 ANSWER 4 OF 11 CAPLUS COPYRIGHT 1999 ACS DUPLICATE 2
 ACCESSION NUMBER: 1997:696667 CAPLUS
 DOCUMENT NUMBER: 127:345339
 TITLE: Methods of delaying development of CEA-associated tumors using anti-idiotype antibody 3H1
 INVENTOR(S): Chatterjee, Malaya; Foon, Kenneth A.
 ; Chatterjee, Sunil K.
 PATENT ASSIGNEE(S): University of Kentucky, USA; Chatterjee, Malaya; Foon, Kenneth A.; Chatterjee, Sunil K.
 SOURCE: PCT Int. Appl., 65 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9738725	A1	19971023	WO 97-US5953	19970411
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9726633	A1	19971107	AU 97-26633	19970411
PRIORITY APPLN. INFO.:			US 96-631085	19960412
			WO 97-US5953	19970411

AB The present invention provides methods of delaying development of CEA-assocd. tumors using the murine monoclonal anti-idiotype antibody 3H1, particularly in high-risk individuals. The treatment may also include administration of aluminum hydroxide as adjuvant as well as 5-fluorouracil and levamisole hydrochloride or leucovorin calcium.

L48 ANSWER 5 OF 11 CAPLUS COPYRIGHT 1999 ACS DUPLICATE 3
 ACCESSION NUMBER: 1997:502803 CAPLUS
 DOCUMENT NUMBER: 127:120707
 TITLE: Murine monoclonal anti-idiotype antibody 11D10 and diagnosis and treatment of breast cancer or other milk fat globule-associated tumors
 INVENTOR(S): Chatterjee, Malaya; Foon, Kenneth A.
 ; Chatterjee, Sunil K.
 PATENT ASSIGNEE(S): University of Kentucky, USA; Chatterjee, Malaya; Foon, Kenneth A.; Chatterjee, Sunil K.
 SOURCE: PCT Int. Appl., 128 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9722699	A2	19970626	WO 96-US20757	19961219
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
CA 2239799	AA	19970626	CA 96-2239799	19961219
AU 9713542	A1	19970714	AU 97-13542	19961219
EP 876486	A2	19981111	EP 96-945090	19961219
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
PRIORITY APPLN. INFO.:			US 95-575762	19951220
			US 96-591965	19960126
			US 96-766350	19961213
			WO 96-US20757	19961219

AB The present invention provides a monoclonal anti-**idiotype** antibody 11D10 that elicits an immune response against a specific epitope of a high mol. wt. mucin of human milk fat globule (HMFG) and a hybridoma that produces 11D10. The hybridoma that produces 11D10 was selected by specific procedures. 11D10 induces an immunol. response to HMFG in mice, rabbits, monkeys and patients with advanced HMFG-assoccd. tumors. This invention provides compns. derived from polynucleotide sequences encoding the variable light and/or variable heavy regions of monoclonal anti-**idiotype** antibody 11D10, as well as polypeptides encoded thereby. The invention also provides compns. which can be used in the detection or treatment of HMFG-assoccd. tumors.

L48 ANSWER 6 OF 11 CAPLUS COPYRIGHT 1999 ACS

ACCESSION NUMBER: 1997:128747 CAPLUS
 DOCUMENT NUMBER: 126:210767
 TITLE: Induction of antitumor immunity by an anti-
idiotype antibody mimicking carcinoembryonic antigen
 AUTHOR(S): Pervin, Shehla; Chakraborty, Mala;
 Bhattacharya-Chatterjee, M.; Zeytin, Hasan; Foon,
 Kenneth A.; Chatterjee, Sunil K.
 CORPORATE SOURCE: Dep. of Obstetrics and Gynecology, Lucille Parker
 Markey Cancer Center, Lexington, KY, 40536-0096, USA
 SOURCE: Cancer Res. (1997), 57(4), 728-734
 CODEN: CNREA8; ISSN: 0008-5472
 PUBLISHER: American Association for Cancer Research
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Carcinoembryonic antigen (CEA) is a tumor-assoccd. antigen expressed on most gastrointestinal adenocarcinomas and is a putative target for cancer immunotherapy. We developed a murine monoclonal **antiidiotype** (anti-ID) antibody, 3H1, which mimics a specific epitope of CEA, for cancer immunotherapy. In this study, the efficacy of 3H1 as a tumor vaccine was evaluated in a murine tumor model. In this model, the murine colorectal cancer cell line MC-38 was transduced with the human CEA gene and injected into syngeneic C57BL/6 (H-2b) mice. Immunization of naive mice with 3H1 conjugated with keyhole limpet hemocyanin Freund's adjuvant induced humoral and cellular anti-3H1 as well as anti-CEA immunity. Mice immunized with 3H1 were protected when challenged with CEA neg. MC-38 cells or when mice were vaccinated with an unrelated anti-ID antibody and challenged with MC-38-CEA cells. These

Search by Barb O'Bryen, STIC 308-4291

data demonstrate that the 3H1 vaccine can induce protective CEA-specific antitumor immunity.

L48 ANSWER 7 OF 11 CAPLUS COPYRIGHT 1999 ACS DUPLICATE 4
 ACCESSION NUMBER: 1996:567270 CAPLUS
 DOCUMENT NUMBER: 125:219616
 TITLE: Monoclonal antibody 1A7 and use for the treatment of melanoma and small cell carcinoma
 INVENTOR(S): Chatterjee, Malaya; Chatterjee, Sunil K.; Foon, Kenneth A.
 PATENT ASSIGNEE(S): University of Kentucky, USA
 SOURCE: PCT Int. Appl., 139 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9622373	A2	19960725	WO 96-US882	19960117
WO 9622373	A3	19961003		
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5612030	A	19970318	US 95-372676	19950117
CA 2210158	AA	19960725	CA 96-2210158	19960117
AU 9654149	A1	19960807	AU 96-54149	19960117
PRIORITY APPLN. INFO.:			US 95-372676	19950117
			US 96-591196	19960116
			WO 96-US882	19960117

AB The present invention relates to monoclonal antibody 1A7. This is an anti-idiotype produced by immunizing with an antibody specific for ganglioside GD2, and identifying a hybridoma secreting antibody with immunogenic potential in a multi-step screening process. The screening process comprised 4 important steps: (1) pos. selection for antibody binding to the anti-ganglioside GD2 antibody 14G2a; (2) neg. selection against antibody recognizing isotypic or allotypic determinants; (3) pos. selection for an ability to inhibit the binding of 14G2a to GD2; and (4) pos. selection for an ability to induce a humor immune response against the original tumor-assocd. antigen (GD2) in both mice and rabbits. Also disclosed are polynucleotide and polypeptide derivs. based on 1A7, including single chain variable region mols. and fusion proteins, and various pharmaceutical compns. To sequence the heavy chain variable region of 1A7, PCRs were conducted on the cDNA using a reverse primer corresponding to amino acids 126-1119 of the murine .gamma.1 const. region and a forward primer corresponding to amino acids -20 to -2; similarly, the 1A7 light chain variable region sequence was detd. using forward and reverse primers corresponding to amino acids -19 to -10 of the leader sequence, and 122-116 of the mouse .kappa.-chain const. region, resp. When administered to an individual, the 1A7 antibody overcomes immune tolerance and induces an immune response against GD2, which comprises a combination of anti-GD2 antibody and GD2-specific T cells. The invention further provides methods for treating a disease assocd. with altered GD2 expression, particularly melanoma, neuroblastoma, glioma, soft tissue sarcoma, and small cell carcinoma. Patients who are in remission as a result of traditional modes of cancer therapy may be treated with a compn. of this invention in hopes of reducing the risk of recurrence.

Search by Barb O'Bryen, STIC 308-4291

L48 ANSWER 8 OF 11 CAPLUS COPYRIGHT 1999 ACS DUPLICATE 5
 ACCESSION NUMBER: 1996:513778 CAPLUS
 DOCUMENT NUMBER: 125:165687
 TITLE: Recombinant monoclonal anti-idiotype antibody 3H1 sequences relating to human carcinoembryonic antigen and use in vaccine
 INVENTOR(S): Chatterjee, Malaya; Kohler, Heinz;
 Chatterjee, Sunil K.; Foon, Kenneth A.
 PATENT ASSIGNEE(S): University of Kentucky, USA
 SOURCE: PCT Int. Appl., 120 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9620277	A2	19960704	WO 95-US17103	19951228
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2209172	AA	19960704	CA 95-2209172	19951228
CA 2209360	AA	19960704	CA 95-2209360	19951228
AU 9646498	A1	19960719	AU 96-46498	19951228
EP 800578	A2	19971015	EP 95-944450	19951228
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
JP 10511846	T2	19981117	JP 95-520610	19951228
PRIORITY APPLN. INFO.:			US 94-365484	19941228
			WO 95-US17103	19951228

AB This invention provides compns. derived from the sequences encoding the variable light and/or variable heavy regions of monoclonal anti-idiotype antibody 3H1 and methods for using these compns.

L48 ANSWER 9 OF 11 CAPLUS COPYRIGHT 1999 ACS DUPLICATE 6
 ACCESSION NUMBER: 1996:513781 CAPLUS
 DOCUMENT NUMBER: 125:165700
 TITLE: Murine monoclonal anti-idiotype antibody 3H1
 INVENTOR(S): Chatterjee, Malaya; Kohler, Heinz;
 Chatterjee, Sunil K.; Foon, Kenneth A.
 PATENT ASSIGNEE(S): University of Kentucky, USA
 SOURCE: PCT Int. Appl., 100 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9620219	A2	19960704	WO 95-US17105	19951228
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, Search by Barb O'Bryen, STIC 308-4291				

NE, SN, TD, TG			
CA 2209172	AA 19960704	CA 95-2209172	19951228
CA 2209360	AA 19960704	CA 95-2209360	19951228
AU 9646927	A1 19960719	AU 96-46927	19951228
EP 796280	A2 19970924	EP 95-944582	19951228
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE			
PRIORITY APPLN. INFO.:		US 94-365484	19941228
		WO 95-US17105	19951228

AB The present invention provides a monoclonal anti-idiotype antibody 3H1 that escapes immune tolerance and elicits a specific immune response to carcinoembryonic antigen (CEA) in mice, rabbits, monkeys, and patients with advanced CEA-assocd. disease. This invention also provides compns. which can be used in the detection or treatment of CEA-assocd. tumors mimics a specific epitope on carcinoembryonic antigen and a hybridoma that produces 3H1. In example, anti-idiotype antibody 3H1 was prep'd. using conjugate of F(ab')2 fragment of anti-CEA monoclonal antibody and keyhole limpet hemocyanin in BALB/c mice, cDNA cloning and sequence detn. of the light and heavy chain variable regions of 3H1 were performed, and use of 3H1 to elicit immune response in primate and human with advance colorectal carcinoma was also demonstrated.

L48 ANSWER 10 OF 11 MEDLINE

DUPLICATE 7

ACCESSION NUMBER: 95188202 MEDLINE
 DOCUMENT NUMBER: 95188202
 TITLE: Induction of human breast cancer-specific antibody responses in cynomolgus monkeys by a murine monoclonal anti-idiotype antibody.
 AUTHOR: Chakraborty M; Mukerjee S; Foon K A; Kohler H; Ceriani R L; Bhattacharya-Chatterjee M
 CORPORATE SOURCE: Lucille Parker Markey Cancer Center, Lexington, Kentucky.
 CONTRACT NUMBER: CA 47860 (NCI)
 CA 57165 (NCI)
 SOURCE: CANCER RESEARCH, (1995 Apr 1) 55 (7) 1525-30.
 Journal code: CNF. ISSN: 0008-5472.
 PUB. COUNTRY: United States
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals; Cancer Journals
 ENTRY MONTH: 199506

AB We have generated and characterized a murine monoclonal anti-idiotype (Id) antibody, designated 11D10, which biologically and antigenically mimics a distinct and specific epitope of the high molecular weight human milk fat globule primarily expressed by human breast and some other tumor cells at high density. This epitope is identified by mAb BrE1, which was used as the immunizing antibody or Ab1 to generate the anti-Id (Ab2) 11D10. 11D10 induced antitumor immune responses across species barriers, i.e., in mice and rabbits. In preclinical studies, cynomolgus monkeys were immunized with 2 mg of either 11D10 or the isotype- and allotype-matched control Ab2 3H1 after precipitation with aluminum hydroxide. All monkeys developed high titers of antibodies against the immunizing mouse immunoglobulin. Immunization with 11D10 induced anti-anti-idiotype antibodies (Ab3) which reacted with breast cancer cell lines but not with control T-cell and melanoma cell lines. The Ab3 shared idiotypes with BrE1 (Ab1), as demonstrated by their ability to inhibit 11D10 binding to BrE1. The Ab3 obtained with 11D10 bound specifically to human milk fat globule antigen and competed with BrE1 for binding to breast cancer cell lines, suggesting that Ab1 and Ab3 may bind to the same epitope. In addition, Id-specific cellular immune responses were demonstrated in monkeys immunized with 11D10 by T-cell proliferation assays. These results indicate that aluminum hydroxide-precipitated anti-Id 11D10 can induce breast cancer-specific antibodies in nonhuman primates and can serve as a

Search by Barb O'Bryen, STIC 308-4291

potential network antigen for breast cancer patients.

L48 ANSWER 11 OF 11 CAPLUS COPYRIGHT 1999 ACS
ACCESSION NUMBER: 1993:647363 CAPLUS
DOCUMENT NUMBER: 119:247363
TITLE: Therapeutic anti-clonotypic vaccines
AUTHOR(S): Kohler, H.; Muller, S.; Chatterjee, M.;
Foon, K. A.
CORPORATE SOURCE: IDEC Pharm. Corp., La Jolla, CA, 92037, USA
SOURCE: Prog. Immunol., Vol. VIII, Proc. Int. Congr. Immunol.,
8th (1993), Meeting Date 1992, 619-26. Editor(s):
Gergely, Janos. Springer: Berlin, Germany.
CODEN: 59JMA5
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English
AB A review, with 35 refs., summarizing exptl. data using anti-
idiotypic antibodies in active immunotherapy approaches. The
authors described the generation of therapeutic Ab2s in several cancers
and in HIV-1 infection. Also, the theor. and biol. mechanisms which
produce the specific immunol. responses and therapeutic effects are
discussed. The authors propose that in the selection of the
anti-clonotypic antibody for a given disease the degree of clonotypic
reactivity (**idiotypic** match) is the most important criteria for
achieving a therapeutically effective immune response.

FILE 'HOME' ENTERED AT 15:44:42 ON 14 APR 1999

=> fil capl; d que 15; d que 18; d que 117; d que 119; s (15 or 18 or 117 or 119) not 146

FILE 'CAPLUS' ENTERED AT 15:45:32 ON 14 APR 1999
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 1999 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications.

FILE COVERS 1967 - 14 Apr 1999 VOL 130 ISS 16
FILE LAST UPDATED: 14 Apr 1999 (19990414/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

L5 4 SEA FILE=CAPLUS ABB=ON 11D10

L7 4 SEA FILE=REGISTRY ABB=ON 192727-42-7 OR 192727-41-6 OR
192727-43-8 OR 192727-44-9 *Registry numbers for 11D10 AA & NA segs*
L8 2 SEA FILE=CAPLUS ABB=ON L7

L11 4218 SEA FILE=CAPLUS ABB=ON ?IDIOTYP?
L16 759 SEA FILE=CAPLUS ABB=ON (MILK FAT OR MILKFAT) (W) GLOBULE#
L17 6 SEA FILE=CAPLUS ABB=ON L11 AND L16

L16 759 SEA FILE=CAPLUS ABB=ON (MILK FAT OR MILKFAT) (W) GLOBULE#
L18 1772 SEA FILE=CAPLUS ABB=ON CDR OR COMPLEMENTARITY (1W) REGION#
L19 6 SEA FILE=CAPLUS ABB=ON L16 AND L18

L49 8 (L5 OR L8 OR L17 OR L19) NOT L46 *previously printed w/ inventors*
=> fil medl; d que 126; d que 129; d que 130; s (126 or 130) not 128

FILE 'MEDLINE' ENTERED AT 15:46:03 ON 14 APR 1999

FILE LAST UPDATED: 13 APR 1999 (19990413/UP). FILE COVERS 1966 TO DATE.

MEDLINE has been reloaded to reflect the annual MeSH changes made by the National Library of Medicine for 1999. Enter HELP RLOAD for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE SUBSTANCE IDENTIFICATION.

L26 2 SEA FILE=MEDLINE ABB=ON 11D10

L29 0 SEA FILE=MEDLINE ABB=ON HB12020 OR HB 12020
Search by Barb O'Bryen, STIC 308-4291

L24 4764 SEA FILE=MEDLINE ABB=ON IMMUNOGLOBULIN VARIABLE REGION+NT/CT
 L25 8829 SEA FILE=MEDLINE ABB=ON ANTIBODIES, ANTI-IDIOTYPIC+NT/CT
 L27 569 SEA FILE=MEDLINE ABB=ON (MILKFAT OR MILK FAT) (W) GLOBUL?
 L30 2 SEA FILE=MEDLINE ABB=ON (L24 OR L25) AND L27

L50 2 (L26 OR L30) NOT L28 *previously printed*

=> fil wpids; d que 134; d que 139; d que 144; s (134 or 144) not 147

FILE 'WPIDS' ENTERED AT 15:46:26 ON 14 APR 1999
 COPYRIGHT (C) 1999 DERWENT INFORMATION LTD

FILE LAST UPDATED: 12 APR 1999 <19990412/UP>
 >>>UPDATE WEEKS:
 MOST RECENT DERWENT WEEK 199914 <199914/DW>
 DERWENT WEEK FOR CHEMICAL CODING: 199914
 DERWENT WEEK FOR POLYMER INDEXING: 199914
 DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> D COST AND SET NOTICE DO NOT REFLECT SUBSCRIBER DISCOUNTS -
 SEE HELP COST <<<

L34 2 SEA FILE=WPIDS ABB=ON 11D10

L35 109 SEA FILE=WPIDS ABB=ON ?12020
 L38 5182 SEA FILE=WPIDS ABB=ON HYBRIDOM? OR HB
 L39 0 SEA FILE=WPIDS ABB=ON L38(S)L35

L40 509 SEA FILE=WPIDS ABB=ON ?IDIOTYP?
 L41 109 SEA FILE=WPIDS ABB=ON COMPLEMENTARITY(1W)REGION#
 L42 518 SEA FILE=WPIDS ABB=ON VARIABLE REGION#
 L43 33 SEA FILE=WPIDS ABB=ON (MILKFAT OR MILK FAT) (W) GLOBUL?
 L44 5 SEA FILE=WPIDS ABB=ON L43 AND ((L40 OR L41 OR L42))

L51 3 (L34 OR L44) NOT L47 *previously printed*

=> dup rem 150,149,151

FILE 'MEDLINE' ENTERED AT 15:46:40 ON 14 APR 1999

FILE 'CAPLUS' ENTERED AT 15:46:40 ON 14 APR 1999
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
 COPYRIGHT (C) 1999 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIDS' ENTERED AT 15:46:40 ON 14 APR 1999
 COPYRIGHT (C) 1999 DERWENT INFORMATION LTD
 PROCESSING COMPLETED FOR L50
 PROCESSING COMPLETED FOR L49
 PROCESSING COMPLETED FOR L51
 L52 10 DUP REM L50 L49 L51 (3 DUPLICATES REMOVED)

=> d ibib ab 152 1-10; fil hom

L52 ANSWER 1 OF 10 CAPLUS COPYRIGHT 1999 ACS
 ACCESSION NUMBER: 1998:590656 CAPLUS
 DOCUMENT NUMBER: 129:229676
 TITLE: Modified antibodies with human milk
 fat globule specificity for breast
 cancer diagnosis and therapy
 INVENTOR(S): Do Couto, Fernando J. R.; Ceriani, Roberto L.;
 Peterson, Jerry A.
 PATENT ASSIGNEE(S): Cancer Research Fund of Contra Costa, USA
 SOURCE: U.S., 76 pp. Cont.-in-part of U.S. Ser. No. 977,696.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5804187	A	19980908	US 93-129930	19930930
US 5792852	A	19980811	US 92-977696	19921116
WO 9411509	A2	19940526	WO 93-US11445	19931116
WO 9411509	A3	19940707		
W: AT, AU, BB, BG, BR, CA, CH, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2149529	AA	19940526	CA 93-2149529	19931116
AU 9463964	A1	19940608	AU 94-63964	19931116
EP 674710	A1	19951004	EP 94-903300	19931116
R: DE, ES, FR, GB, IE, IT, NL, SE				
JP 09503901	T2	19970422	JP 93-512520	19931116
PRIORITY APPLN. INFO.:			US 92-977696	19921116
			US 93-129930	19930930
			US 93-134346	19931008
			WO 93-US11445	19931116

AB An analog peptide that comprises the variable regions of the light or heavy chains of an antibody of a first species selectively binding to a carcinoma antigen has 1 to 46 amino acids of the framework regions per chain substituted with amino acids such as those present in equiv. positions in antibodies of a species other than the first species, or fragments thereof comprising 1 to 3 variable region CDRs per chain and optionally flanking regions thereof of 1 to 10 or more amino acids, alone or with an N-terminal fragment of 1 to 10 or more amino acids, combinations or mixts. thereof. The polypeptide may also comprise an effector agent and/or be glycosylated, and is presented as a compn. with a carrier. The analog peptides are used in diagnostic kits for carcinomas and methods for in vivo imaging and treating a primary or metastasized carcinoma, and in vitro diagnosing a carcinoma, ex vivo purging neoplastic cells from a biol. fluid. RNAs and DNAs encode the analog peptide, and a hybrid vector carrying the nucleotides and transfected cells express the peptides and a method produces the analog peptide. An anti-idiotype polypeptide comprises polyclonal antibodies raised against an anti-carcinoma antibody or the analog peptide of this invention, monoclonal antibodies thereof, Fab, Fab', (Fab')₂, CDR, variable region, or analogs or fragments thereof, combinations thereof with an oligopeptide comprising a TRP trimer, tandem repeats thereof, or combination or mixts. thereof. An anti-idiotype hybrid polypeptide with an effector agent and the anti-idiotype polypeptide, an anti-carcinoma vaccine, an anti-carcinoma vaccination kit, a method of vaccinating against carcinoma and a method of lowering the serum concn. of a circulating antibody or polypeptide are provided.

L52 ANSWER 2 OF 10 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
 ACCESSION NUMBER: 96-179941 [18] WPIDS
 DOC. NO. NON-CPI: N96-151169
 DOC. NO. CPI: C96-056826
 TITLE: Recombinant Mc3 antibody which binds BA46 antigen of HMFG
 - comprises a modified heavy or light chain
 variable region, useful in the
 diagnosis and therapy of breast cancer.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): CERIANI, R I; DO, COUTO F J R; PETERSON, J A
 PATENT ASSIGNEE(S): (CANC-N) CANCER RES FUND CONTRA COSTA
 COUNTRY COUNT: 65
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9608565	A2	960321	(9618)*	EN	91
RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG					
W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE					
KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NO NZ PL PT RO RU SD SE					
SG SI SK TJ TM TT UA UG US UZ VN					
AU 9535887	A	960329	(9628)		
WO 9608565	A3	960711	(9635)		
EP 784684	A1	970723	(9734)	EN	
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9608565	A2	WO 95-US11683	950914
AU 9535887	A	AU 95-35887	950914
WO 9608565	A3	WO 95-US11683	950914
EP 784684	A1	EP 95-933105	950914
		WO 95-US11683	950914

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9535887	A Based on	WO 9608565
EP 784684	A1 Based on	WO 9608565

PRIORITY APPLN. INFO: US 95-487598 950607; US 94-307868 940916
 AB WO 9608565 A UPAB: 960503
 Recombinant Mc3 antibody (rAb) which binds to BA46 antigen of the human
 milk fat globule (HMFG) comprises 1 modified
 variable region from; (a) a modified heavy or light
 chain variable region (VH and VL, resp.) with a
 sequence similar to murine Mc3, and (b) derivs. of (a) in which 1 residues
 have been modified without disrupting antigen binding.

USE - The rAb can be used in an in vitro method to detect an HMFG
 antigen or fragment, and to diagnose the presence of the antigen or
 fragment in a subject (claimed). It is also useful to deliver an agent to
 a target within a subject's body contg. an HMFG antigen (claimed). The
 rAbs are partic. useful for diagnostic, prognostic and therapeutic
 applicns. in breast cancer.

ADVANTAGE - The humanised Abs retain their high affinity binding to
 the antigen, and are useful for immunodiagnostic and immunotherapeutic
 applicns. in humans.

Dwg.0/23

L52 ANSWER 3 OF 10 MEDLINE
ACCESSION NUMBER: 95228057 MEDLINE
DOCUMENT NUMBER: 95228057
TITLE: Anti-BA46 monoclonal antibody Mc3: humanization using a novel positional consensus and in vivo and in vitro characterization.
AUTHOR: Couto J R; Blank E W; Peterson J A; Ceriani R L
CORPORATE SOURCE: Cancer Research Fund of Contra Costa, Walnut Creek, California 94596, USA..
SOURCE: CANCER RESEARCH, (1995 Apr 15) 55 (8) 1717-22.
Journal code: CNF. ISSN: 0008-5472.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199507
AB Mc3 is a murine mAb that is highly effective in treating breast tumors in experimental radioimmunotherapy. Mc3 binds to BA46, a 46-kDa glycoprotein of the human **milk fat globule** membrane that is also expressed in breast carcinoma cells. We cloned and sequenced cDNAs encoding the variable regions of Mc3 and constructed an IgG1, kappa human/mouse chimeric antibody. We then humanized the variable regions of Mc3 using a positional consensus method and retaining residues that might either contact the complementarity-determining regions or the opposite chain. This positional consensus is novel in that it does not include residues with buried side chains. Humanized Mc3 retained full binding affinity, and fully competes with murine Mc3 for antigen binding. Humanized and murine 131I-labeled Mc3 behaved identically in athymic nu/nu mice biodistribution studies. The tumor uptake levels for both antibodies increased over a period of 4 days within a range of 13-20% of the injected dose per g with extremely favorable tumor:normal ratios. Also, a single therapeutic dose of 131I-labeled humanized Mc3 in the same animal model reduced the average tumor size and produced one of five cures while in the uninjected control tumor growth continued unabated. We believe that these results justify the implementation of Phase I human clinical trials for imaging and radioimmunotherapy of breast cancer.

L52 ANSWER 4 OF 10 MEDLINE
ACCESSION NUMBER: 96155666 MEDLINE
DOCUMENT NUMBER: 96155666
TITLE: Endoplasmic reticulum protein Hsp47 binds specifically to the N-terminal globular domain of the amino-propeptide of the procollagen I alpha 1 (I)-chain.
AUTHOR: Hu G; Gura T; Sabsay B; Sauk J; Dixit S N; Veis A
CORPORATE SOURCE: Division of Oral Biology, Northwestern University, Chicago, Illinois 60611, USA.
CONTRACT NUMBER: AR13921 (NIAMS)
DE01374 (NIDR)
DE08648 (NIDR)
+
SOURCE: JOURNAL OF CELLULAR BIOCHEMISTRY, (1995 Nov) 59 (3) 350-67.
Journal code: HNF. ISSN: 0730-2312.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199605
AB Hsp47, an endoplasmic reticulum-resident heat shock protein in fibroblasts, has gelatin-binding properties. It had been hypothesized that it functions as a chaperone regulating procollagen chain folding and/or assembly, but the mechanism of the hsp47-procollagen I interaction was not clear. Hsp47 could bind to both denatured and native procollagen I. A Search by Barb O'Bryen, STIC 308-4291

series of competition studies were carried out in which various collagens and collagen domain peptides were incubated with 35[S]-methionine-labeled murine 3T6 cell lysates prior to mixing with gelatin-Sepharose 4B beads. The gelatin-bound proteins were collected and analyzed by gel electrophoresis and autoradiography. Collagenase digested procollagen I had the same effect as denatured intact procollagen, indicating that the propeptides were the major interaction sites. The addition of intact pro alpha 1(I)-N-propeptide at 25 micrograms/ml completely inhibited hsp47 binding to the gelatin-Sepharose. Even the pentapeptide VPTDE, residues 86-90 of the pro alpha 1(I)-N-propeptide, inhibits hsp47-gelatin binding. These data implicating the pro alpha 1(I)-N-propeptide domain were confirmed by examination of polysome-associated pro alpha chains. The nascent pro alpha 1(I)-chains with intact N-propeptide regions could be precipitated by monoclonal hsp47 antibody 11D10, but could not be precipitated by monoclonal anti-pro alpha 1 (I)-N-propeptide antibody SP1.D8 unless dissociated from the hsp47. GST-fusion protein constructs of residues 23-108 (NP1), 23-151 (NP2), and 23-178 (NP3) within the pro alpha 1 (I)- N-propeptide were coupled to Sepharose 4B and used as affinity beads for collection of hsp47 from 3T6 cell lysates. NP1 and NP2 both showed strong specific binding for lysate hsp47. Finally, the interaction was studied in membrane-free in vitro cotranslation systems in which the complete pro alpha 1(I)- and pro alpha 2(I)-chain RNAs were translated alone and in mixtures with each other and with hsp47 RNA. There was no interaction evident between pro alpha 2(I)-chains and hsp47, whereas there was strong interaction between pro alpha 1(I)-chains and nascent hsp47. SP1.D8 could not precipitate pro alpha 1(I)-chains from the translation mix if nascent hsp47 was present. These data all suggest that if hsp47 has a "chaperone" role during procollagen chain processing and folding it performs this specific role via its preferential interaction with the pro alpha 1 (I) chain, and the pro alpha 1(I) amino-propeptide region in particular.

L52 ANSWER 5 OF 10 CAPLUS COPYRIGHT 1999 ACS
 ACCESSION NUMBER: 1994:595904 CAPLUS
 DOCUMENT NUMBER: 121:195904
 TITLE: Analogs of humanized antibodies to tumor antigens and their use as neoplasm inhibitors
 INVENTOR(S): Do Couto, Fernando J. R.; Ceriani, Roberto L.; Peterson, Jerry A.; Padlan, Eduardo A.
 PATENT ASSIGNEE(S): Cancer Research Fund of Contra Costa, USA
 SOURCE: PCT Int. Appl., 109 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9411509	A2	19940526	WO 93-US11445	19931116
WO 9411509	A3	19940707		
W: AT, AU, BB, BG, BR, CA, CH, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE, US RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5792852	A	19980811	US 92-977696	19921116
US 5804187	A	19980908	US 93-129930	19930930
AU 9463964	A1	19940608	AU 94-63964	19931116
WO 9510776	A1	19950420	WO 93-US11444	19931116
W: AU, CA, JP RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2173324	AA	19950420	CA 93-2173324	19931116
			Search by Barb O'Bryen, STIC	308-4291

AU 9458692	A1	19950504	AU 94-58692	19931116
EP 674710	A1	19951004	EP 94-903300	19931116
R: DE, ES, FR, GB, IE, IT, NL, SE				
EP 723663	A1	19960731	EP 94-904804	19931116
R: DE, FR, GB, IT				
JP 09503663	T2	19970415	JP 93-510496	19931116
JP 09503901	T2	19970422	JP 93-512520	19931116
PRIORITY APPLN. INFO.:				
			US 92-977696	19921116
			US 93-129930	19930930
			US 93-134346	19931008
			WO 93-US11444	19931116
			WO 93-US11445	19931116

AB Analogs of humanized antibodies to tumor antigens with 1-3 complementarity detg. regions per chain are described for use in the diagnosis and treatment of tumors. The polypeptide may be conjugated with an effector agent, e.g. a neoplasm inhibitor, and be glycosylated. These analogs are used in diagnostic kits for neoplasms such as carcinomas and methods for in vivo imaging and treating a primary or metastasized neoplasm such as a carcinoma, and in vitro diagnosis of neoplasm, and ex vivo purging of neoplastic cells from a biol. fluid. These analogs may be manufd. by expression of the corresponding cloned genes; computer modeling of antibody surfaces is used to minimize the no. of changes involved in humanization. Polyclonal or monoclonal anti-idiotypic antibodies, optionally in combination with other effectors may be used in vaccines against cancer (no data). A mouse monoclonal antibody to an epitope of human milk fat globules and breast mucin was used in the prepn. of a humanized antibody. The binding of the humanized antibody to the epitope was comparable to that of the original mouse antibody.

L52 ANSWER 6 OF 10 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD
 ACCESSION NUMBER: 94-183509 [22] WPIDS
 DOC. NO. NON-CPI: N94-144842
 DOC. NO. CPI: C94-083211
 TITLE: Chimeric human-murine polypeptide(s) specific for human mammary fat globule antigen - for imaging, diagnosing and treating neoplasia, with less undesirable immunogenic response.
 DERWENT CLASS: A96 B04 D16 S03
 PATENT ASSIGNEE(S): (CANC-N) CANCER RES FUND CONTRA COSTA
 COUNTRY COUNT: 36
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9411508	A2	940526	(9422)*	EN	54
RW:	AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE				
W:	AT AU BB BG BR CA CH DE DK ES FI GB HU JP KP KR LK LU MG MN MW NL				
	NO PL RO RU SD SE				
AU 9456155	A	940608	(9435)		
WO 9411508	A3	940707	(9517)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9411508	A2	WO 93-US11316	931115
AU 9456155	A	AU 94-56155	931115
WO 9411508	A3	WO 93-US11316	931115

FILING DETAILS:

Search by Barb O'Bryen, STIC 308-4291

PATENT NO	KIND	PATENT NO
AU 9456155	A Based on	WO 9411508

PRIORITY APPLN. INFO: US 92-977706 921113; US 92-977707 921113; US 93-128015 930928

AB WO 9411508 A UPAB: 940722

An isolated polypeptide (1) which selectively binds to an antigen on the surface of, or in the cytoplasm of neoplastic cells, or that is released by the cells, is new. The polypeptide has at least one **variable region** of the light or heavy chains of an antibody of a species having affinity and specificity for the human **milk fat globule** (HMFG) and for an antigen found on the surface or the cytoplasm of a tumour cell or that released by the cell. The polypeptide is operatively linked to at least one other polypeptide.

Transfected hosts having ATCC accession nos. 11200 and HB11201.

For inhibiting the growth/reducing the size of a neoplastic tumour, the hybrid polypeptide is administered in an amt. of about 0.001 to 200 microg/kg body weight per dose. For vaccination, the anti-**idiotype** polypeptide is administered in an amt. of about 0.1 to 500 microg/kg body wt./dose. To lower serum concentration, the binding polypeptide is given at 0.01 to 100 microg/kg body wt./dose.

USE/ADVANTAGE - Tumours may be imaged and/or diagnosed *in vivo* by administering radiolabelled (I) and detecting any localised labelled polypeptide, and *in vitro* by contacting a biological sample with the hybrid polypeptide to form a complex with neoplastic antigen present in the sample and detecting any complex formed. The growth/size of a primary or metastasised tumour may be therapeutically inhibited or reduced by administering the polypeptide or hybrid polypeptide. The hybrid polypeptide may also contain an effector agent and be used as an anti-neoplastic vaccine. The serum concentration of a circulating polypeptide that binds to an antigen present on the surface of or in the cytoplasm of tumour cells, or released by the cells may be lowered by administering the anti-**idiotype** polypeptide to accelerate the clearance of the polypeptide. The polypeptides elicit a lesser immunological response in the subject treated than the complete sequence of the heterologous non-human Ab.

Dwg.0/0

L52 ANSWER 7 OF 10 CAPLUS COPYRIGHT 1999 ACS
 ACCESSION NUMBER: 1993:407220 CAPLUS
 DOCUMENT NUMBER: 119:7220
 TITLE: Humanized antibodies to human **milk fat globules**
 INVENTOR(S): Adair, John Robert; Hamann, Philip R.; Owens, Raymond John; Baker, Terence Seward; Lyons, Alan Howard; Hinman, Lois M.; Menendez, Ana T.
 PATENT ASSIGNEE(S): Celltech Ltd., UK
 SOURCE: Eur. Pat. Appl., 59 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 534742	A1	19930331	EP 92-308680	19920924
EP 534742	B1	19971119		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CA 2095926	AA	19930327	CA 92-2095926	19920924
WO 9306231	A1	19930401	WO 92-GB1759	19920924
		Search by Barb O'Bryen, STIC	308-4291	

W: AU, CA, CS, FI, HU, JP, KR, NO			
AU 9225983	A1 19930427	AU 92-25983	19920924
AU 666868	B2 19960229		
EP 781845	A2 19970702	EP 97-200482	19920924
EP 781845	A3 19970709		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE			
AT 160362	E 19971215	AT 92-308680	19920924
ES 2108732	T3 19980101	ES 92-308680	19920924
IL 103269	A1 19980104	IL 92-103269	19920924
PRIORITY APPLN. INFO.:		GB 91-20467	19910926
		EP 92-308680	19920924
		WO 92-GB1759	19920924

AB Chimeric and complementarity-detg. region (CDR)-grafted humanized antibodies to human milk fat globules are prepd. for use in the diagnosis and treatment of breast cancer. The CDRs are derived from the mouse IgG1 kappa monoclonal antibody CTMO1 that recognizes an antigen found in high levels in blood of breast cancer patients. The antibody may be conjugated with antitumor agents for treatment of the disease. The genes for the humanized antibodies were constructed by std. methods and expressed in CHO-L761 cells. Binding and internalization of the humanized antibodies by breast carcinoma cell lines was demonstrated. Conjugation of the antibodies with calicheamicin .gamma.1I was demonstrated.

L52 ANSWER 8 OF 10 CAPLUS COPYRIGHT 1999 ACS

ACCESSION NUMBER: 1993:426273 CAPLUS
 DOCUMENT NUMBER: 119:26273
 TITLE: Construction of a reshaped HMFG1 antibody and comparison of its fine specificity with that of the parent mouse antibody
 AUTHOR(S): Verhoeven, M. E.; Saunders, J. A.; Prive, M. R.; Marugg, J. D.; Briggs, S.; Broderick, E. L.; Eida, S. J.; Mooren, A. T. A.; Badley, R. A.
 CORPORATE SOURCE: Colworth Lab., Unilever Res., Bedford, MK44 1LQ, UK
 SOURCE: Immunology (1993), 78(3), 364-70
 CODEN: IMMUAM; ISSN: 0019-2805

DOCUMENT TYPE: Journal
 LANGUAGE: English

AB A human antibody with milk mucin specificity was obtained by transferring the complementarity detg. regions (CDR) of the mouse antibody HMFG1 onto carefully selected human framework regions. The resulting reshaped human antibody, HuHMFG1, showed no difference in relative affinity for its antigen compared with the parent mouse HMFG1. The min. epitope recognized by both the mouse and reshaped antibodies was demonstrated by epitope mapping to be identical, and consists of the tetramer PDTR. In a replacement net anal., in which each of the amino acids was replaced in turn with the 19 other residues, it was detd. that mouse HMFG1 and HuHMFG1 reacted with this series of synthetic peptides in an equiv. manner, indicating retention of identical fine specificity in the HuHMFG1 antibody. In contrast to other published reports, this was achieved without involvement of any framework residues in the binding site transfer. These data demonstrate that if well-matching human framework regions are employed grafting the CDR only can be sufficient to confer desired specificities to human antibodies and can, indeed, provide human analogs of mouse antibodies with virtually indistinguishable affinities and fine specificities relative to the mouse parent antibodies.

L52 ANSWER 9 OF 10 CAPLUS COPYRIGHT 1999 ACS

ACCESSION NUMBER: 1992:549288 CAPLUS
 DOCUMENT NUMBER: 117:149288
 TITLE: Reshaped human antibody and fragments thereof specific for human polymorphic epithelial mucin (PEM)
 Search by Barb O'Bryen, STIC 308-4291

DUPLICATE 3

INVENTOR(S): Verhoeven, Martine Elisa
 PATENT ASSIGNEE(S): Unilever PLC, UK; Unilever N. V.
 SOURCE: PCT Int. Appl., 59 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9204380	A1	19920319	WO 91-GB1511	19910905
W: AU, BG, CA, FI, HU, JP, KR, NO, RO, SU, US				
AU 9184953	A1	19920330	AU 91-84953	19910905
AU 653167	B2	19940922		
EP 483961	A1	19920506	EP 91-308147	19910905
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE				
JP 06500468	T2	19940120	JP 91-514961	19910905
HU 67796	A2	19950428	HU 93-609	19910905
NO 9300825	A	19930505	NO 93-825	19930305
PRIORITY APPLN. INFO.:			GB 90-19553	19900907
			WO 91-GB1511	19910905

AB A reshaped human antibody (fragment) with specificity for human PEM is produced by transferring the **complementarity-detg. regions** (CDRs) from a murine anti-HMFG (HMFG is human **milk fat globule**) cell line HMFG1 into a human antibody variable region framework. The reshaped antibody can be used in the diagnosis and treatment of cancer. Cloning and sequence detn. of the mouse variable region genes, grafting of the mouse CDRs onto human framework regions, assembly of the reshaped human antibody genes in expression vectors, de novo synthesis of a human variable heavy region gene, and plasmid expression in myeloma cells are described. Antibody diln. curves for murine and reshaped HMFG1 antibodies were similar, indicating a significant and useful level of binding effectiveness for the reshaped antibody.

L52 ANSWER 10 OF 10 CAPLUS COPYRIGHT 1999 ACS
 ACCESSION NUMBER: 1990:404532 CAPLUS
 DOCUMENT NUMBER: 113:4532
 TITLE: Anti-**idiotype2** antibodies and their production for diagnosis and therapy
 INVENTOR(S): Epenetos, Agamemnon Antoniou; Courtney-Luck, Nigel Stephen; Sivolapenko, Gregory Byron
 PATENT ASSIGNEE(S): Imperial Cancer Research Technology Ltd., UK
 SOURCE: PCT Int. Appl., 56 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8911537	A1	19891130	WO 89-GB572	19890523
W: AU, DK, FI, JP, NO, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU 8936987	A1	19891212	AU 89-36987	19890523
EP 418283	A1	19910327	EP 89-906389	19890523
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL				
JP 03504323	T2	19910926	JP 89-505652	19890523
PRIORITY APPLN. INFO.:			GB 88-12137	19880523
			GB 88-12837	19880523

Search by Barb O'Bryen, STIC 308-4291

WO 89-GB572 19890523

AB Anti-anti-idiotype2 (anti-Id2) antibodies to an antigen are produced directly by inoculating an animal with monoclonal antibodies (or fragments thereof) to the antigen and recovering the anti-Id2 antibodies from a body fluid. Since the inoculated antibody is rapidly cleared from the body fluids, any antibody specific for the same antigen, found in the body fluid after a suitable interval, is necessarily anti-Id2 produced against elicited anti-Id1 (anti-idiotype antibody) in a cascade reaction. Alternatively, cells capable of producing anti-Id2 antibodies are recovered from a tissue or body fluid of the inoculated animal and either (1) immortalized for antibody prodn. or (2) used for recovery of nucleic acid encoding the anti-Id2 antibody for transfection into an expression system. The anti-Id2 antibodies are useful in diagnosis and therapy. Thus, patients with ovarian cancer were i.p. administered murine IgG1 monoclonal antibodies to **milk fat globule** (MFG) antigen (expressed by most ovarian carcinomas). Sequential studies on serum from the patients showed an increase in both anti-Id1 antibodies (which inhibited binding of the administered antibody to MFG antigen) and anti-Id2 antibodies (which bound to MFG antigen after removal of anti-murine Ig and anti-Id1 antibodies from the serum with an affinity column).

FILE 'HOME' ENTERED AT 15:46:55 ON 14 APR 1999

THIS PAGE BLANK (USPTO)

=> fil uspat; d que 18

'FILE 'USPAT' ENTERED AT 16:13:51 ON 14 APR 1999

```
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*          W E L C O M E      T O      T H E      *
*          U. S.      P A T E N T      T E X T      F I L E      *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

L1 1 SEA FILE=USPAT "CHATTERJEE, MALAYA"/IN
L3 1 SEA FILE=USPAT "FOON, KENNETH A"/IN
L8 1 SEA FILE=USPAT L1 OR L3

=> e chatterjee, su/in

E#	FILE	FREQUENCY	TERM
--	---	-----	-----
E49	USPAT	2	CHATTERJEE, SIDDHARTHA/IN
E50	USPAT	2	CHATTERJEE, SOUGATO/IN
E51	USPAT	0 -->	CHATTERJEE, SU/IN
E52	USPAT	7	CHATTERJEE, SUGATA/IN
E53	USPAT	1	CHATTERJEE, SUKUMAR/IN
E54	USPAT	1	CHATTERJEE, SUMANTA/IN
E55	USPAT	1	CHATTERJEE, SURAJIT/IN
E56	USPAT	6	CHATTERJI, ARUN K/IN
E57	USPAT	7	CHATTERJI, DEBAJYOTI/IN
E58	USPAT	2	CHATTERJI, DULAL C/IN
E59	USPAT	31	CHATTERJI, JITEN/IN
E60	USPAT	1	CHATTERJI, JITEN N/IN

=> d 18 cit fd ab

1. 5,612,030; Mar. 18, 1997, Anti-idiotype monoclonal antibody 1A7 and use for the treatment of melanoma and small cell carcinoma; **Malaya Chatterjee, et al.**, 424/131.1, 155.1, 174.1; 435/70.21, 327, 344.1; 530/387.2, 388.8, 391.3 [IMAGE AVAILABLE]

US PAT NO: 5,612,030 [IMAGE AVAILABLE]
DATE FILED: Jan. 17, 1995

L8: 1 of 1

ABSTRACT:

The present invention relates isolation of anti-idiotypic antibody 1A7 raised against anti-GD2 mAb 14G2a and its use for the treatment of melanoma and small cell carcinoma. The antibody may be used as a substitute for isolated purified GD2 antigen in any appropriate application.

=> d que 16; d que 17; d que 112; s (16 or 112) not 18

L6 2 SEA FILE=USPAT '11D10'

L7 0 SEA FILE=USPAT (12020 (P)(HYBRIDOM? OR HB)) OR HB12020

L9 138 SEA FILE=USPAT (MILK FAT OR MILKFAT) (W) GLOBUL?
L10 3502 SEA FILE=USPAT IDIOTYP? OR ANTIIDIOTYP? OR ((COMPLEMENTAR
ITY
OR VARIABLE) (1W) REGION#)
L12 2 SEA FILE=USPAT L9 (P) L10
Search by Barb O'Bryen, STIC 308-4291

L13

3 (L6 OR L12) NOT L8 previously printed

=> d cit fd ab 113 1-3; fil hom

1. 5,804,187, Sep. 8, 1998, Modified antibodies with human milk fat globule specificity; Fernando J. R. do Couto, et al., 424/134.1, 133.1, 138.1; 435/7.23, 328, 330; 530/387.3, 387.7 [IMAGE AVAILABLE]

US PAT NO: 5,804,187 [IMAGE AVAILABLE]
DATE FILED: Sep. 30, 1993

L13: 1 of 3

ABSTRACT:

An analogue peptide that comprises the variable regions of the light or heavy chains of an antibody of a first species selectively binding to a carcinoma antigen has 1 to 46 amino acids of the framework regions per chain substituted with amino acids such as those present in equivalent positions in antibodies of a species other than the first species, or fragments thereof comprising 1 to 3 variable region CDRs per chain and optionally flanking regions thereof of 1 to 10 or more amino acids, alone or with an N-terminal fragment of 1 to 10 or more amino acids, combinations or mixtures thereof. The polypeptide may also comprise an effector agent and/or be glycosylated, and is presented as a composition with a carrier. The analogue peptides are used in diagnostic kits for carcinomas and methods for in vivo imaging and treating a primary or metastasized carcinoma, and in vitro diagnosing a carcinoma, ex vivo purging neoplastic cells from a biological fluid. RNAs and DNAs encode the analogue peptide, and a hybrid vector carrying the nucleotides and transfected cells express the peptides and a method produces the analogue peptide. An anti-idiotype polypeptide comprises polyclonal antibodies raised against an anti-carcinoma antibody or the analogue peptide of this invention, monoclonal antibodies thereof, Fab, Fab', (Fab').sub.2, CDR, variable region, or analogues or fragments thereof, combinations thereof with an oligopeptide comprising a TRP trimer, tandem repeats thereof, or combination or mixtures thereof. An anti-idiotype hybrid polypeptide with an effector agent and the anti-idiotype polypeptide, an anti-carcinoma vaccine, an anti-carcinoma vaccination kit, a method of vaccinating against carcinoma and a method of lowering the serum concentration of a circulating antibody or polypeptide are provided.

2. 5,792,852, Aug. 11, 1998, Polynucleotides encoding modified antibodies with human milk fat globule specificity; Fernando J. R. do Couto, et al., 536/23.53; 424/133.1, 134.1, 135.1; 530/387.3; 536/23.5 [IMAGE AVAILABLE]

US PAT NO: 5,792,852 [IMAGE AVAILABLE]
DATE FILED: Nov. 16, 1992

L13: 2 of 3

ABSTRACT:

A polynucleotide encodes a modified antibody, or single chains thereof. The modified antibody has a non-antigen-binding peptide such as the constant regions of an antibody of a first species, peptide hormones, enzymes, and peptide transmitters; and a binding peptide such as the unsubstituted light and heavy chains of the **variable region** of an antibody of a second species which binds the **human milk fat globule** (HMFG) antigen. The non-antigen-binding peptide is linked to at least one chain of the binding peptide, the chains may be linked to one another at a site other than the antigenic binding site, and at least one chain of the binding peptide has 1 to 46 amino acids substituted with amino acids selected from specific ones assigned to each site. The
Search by Barb O'Bryen, STIC 308-4291

polynucleotide and other products are also provided in the form of compositions, with a carrier. The polynucleotides may be RNAs and DNAs, and are also provided as hybrid vectors carrying them, and as transfected cells expressing the modified antibodies or their single chains.

3. 4,247,941, Jan. 27, 1981, Simulator for bit and byte synchronized data network; James C. Raymond, 364/221, 221.2, 221.6, 221.7, 232.3, 232.9, 234, 234.2, 240.8, 241.9, 242.94, 242.96, 260, 260.1, 262.4, 270, 270.3, 271.6, 271.8, 284, 284.4, 285, 285.4, DIG.1; 395/500; 714/741
[IMAGE AVAILABLE]

US PAT NO: 4,247,941 [IMAGE AVAILABLE] L13: 3 of 3
DATE FILED: Jun. 28, 1979

ABSTRACT:

A data communication simulator system wherein the basic operational conditions of a bit and byte synchronized data network may be simulated by generation of a bit timing signal, a byte timing signal, data signals, and control and status indication signals. Manual as well as automatic testing modes are provided, the manual mode including a signal stepping control arranged to enable either full or half cycle operation.

FILE 'HOME' ENTERED AT 16:14:45 ON 14 APR 1999

THIS PAGE BLANK (USPTO)

? show files

File 159:Cancerlit 1975-1999/Mar
 (c) format only 1999 Dialog Corporation
 File 94:JICST-EPlus 1985-1999/Jan W2
 (c)1999 Japan Science and Tech Corp(JST)
 File 65:Inside Conferences 1993-1999/Apr W2
 (c) 1999 BLDSC all rts. reserv.
 File 77:Conference Papers Index 1973-1999/May
 (c) 1999 Cambridge Sci Abs
 File 144:Pascal 1973-1999/Mar
 (c) 1999 INIST/CNRS
 File 35:Dissertation Abstracts Online 1861-1999/Apr
 (c) 1999 UMI
 File 76:Life Sciences Collection 1982-1999/Jan
 (c) 1999 Cambridge Sci Abs
 File 358:Current BioTech Abs 1983-1999/May
 Royal Soc Chem & DECHEMA
 File 5:BIOSIS PREVIEWS(R) 1969-1999
 (c) 1999 BIOSIS
 File 315:ChemEng & Biotec Abs 1970-1999/May
 (c)1999 RoySocChm, DECHEMA, FizChemie
 File 73:EMBASE 1974-1999/Mar W4
 (c) 1999 Elsevier Science B.V.
 File 357:Derwent Biotechnology Abs 1982-1999/Apr B2
 (c) 1999 Derwent Publ Ltd
 File 347:JAPIO Oct 1976-1998/Nov. (UPDATED 990312)
 (c) 1999 JPO & JAPIO

? ds

Set	Items	Description
S1	807	AU=((CHATTERJEE, M?) OR (CHATTERJEE M?))
S2	814	AU=((FOON, K?) OR (FOON K?))
S3	4229	AU=((CHATTERJEE, S?) OR (CHATTERJEE S?))
S4	13	11D10
S5	1	(12020(S)(HB OR HYBRIDOM?)) OR HB12020
S6	2347	(MILKFAT OR (MILK(W)FAT))(W)GLOBUL?
S8	25400	(VARIABLE OR COMPLEMENTARITY)(1W)REGION?
S9	27245	IDIOTYP? OR ANTIIDIOTYP?
S10	11	(S1-S3) AND (S4 OR S5 OR (S6 AND (S8 OR S9)))
S11	25	S6 AND (S8 OR S9)

? rd s10

>>>Duplicate detection is not supported for File 347.

>>>Records from unsupported files will be retained in the RD set.

...completed examining records

 S14 7 RD S10 (unique items)

? t s14/7/1-7

Inventors

14/7/1 (Item 1 from file: 159)
 DIALOG(R)File 159:Cancerlit
 (c) format only 1999 Dialog Corporation. All rts. reserv.

01369944 98641139 ICDB/98641139
 Immune responses in advanced breast cancer patients treated with an anti-
 ****idiotype**** antibody vaccine (Meeting abstract).
 Chakraborty M; Sen G; Banerjee M; ****Foon KA****; Garrison J;
 Bhattacharya-Chatterjee M

Search by Barb O'Bryen, STIC 308-4291

Markey Cancer Center, University of Kentucky, Lexington, KY 40536
Proc Annu Meet Am Assoc Cancer Res; 38:A4139 1997 ISSN 0197-016X
Languages: ENGLISH

Document Type: MEETING ABSTRACT; CLINICAL TRIAL, PHASE I

We have initiated a phase 1b clinical trial for patients with advanced breast cancer with an anti-****idiotype**** antibody, designated ****11D10****, which mimics the human ****milk**** ****fat**** ****globule**** (HMFG) membrane antigen. ****11D10**** (Ab2) was raised against the anti-HMFG mAb MC-10 (Ab1). Patients are randomized to intracutaneous injections of 1, 2, 4 or 8 mg of ****11D10**** after precipitation with aluminum hydroxide (alum). Fifteen patients have thus far been entered on the trial and the first twelve are evaluable for immune response. Five out of 12 patients have generated significant levels of anti-anti-1d antibody (Ab3) that inhibited the binding of Ab2 to Ab1 and vice versa. Affinity purified Ab3 from 3 patients' sera bound specifically to the purified HMFG antigen and immunostained the breast cancer tissue sections. The isotype of the antibody (Ab3/Ab1') was predominantly IgG. Peripheral blood lymphocytes (PBL) isolated from 3/12 immunized patients showed in vitro ****idiotype**** specific T cell proliferative responses. The results suggest that anti-1d ****11D10**** can induce both humoral and cellular immune responses in some advanced breast cancer patients who were heavily pretreated. Toxicity was minimal with only mild erythema and induration at the injection site. Future immunotherapy trials will employ breast cancer patients with minimal residual disease in the adjuvant setting.

14/7/2 (Item 2 from file: 159)

DIALOG(R) File 159:Cancerlit

(c) format only 1999 Dialog Corporation. All rts. reserv.

01297177 97621905 ICDB/97637563

Anti-****idiotype**** -cytokine fusion protein for breast cancer therapy (Meeting abstract).

Tripathi PK; Qin H-X; Xu; ****Foon KA****; Bhattacharya-Chatterjee M; ****Chatterjee SK****

Markey Cancer Center, University of Kentucky, Lexington, KY 40536

Proc Annu Meet Am Assoc Cancer Res; 38:A563 1997 ISSN 0197-016X

Languages: ENGLISH

Document Type: MEETING ABSTRACT

We have generated a murine monoclonal anti-****idiotype**** antibody, ****11D10****, which mimics biologically and antigenically a distinct and specific epitope of the high molecular weight human ****milk**** ****fat**** ****globule**** (HMFG). To augment the immunogenicity of ****11D10**** in vaccinated breast cancer patients, without using any carrier protein or adjuvant, we made a chimeric ****11D10****-GM-CSF fusion protein vaccine. An expression plasmid was made by ligation of the sequences of ****11D10**** light chain ****variable**** ****region****, upstream of human kappa constant region. The heavy chain plasmid was made by ligation of the heavy chain ****variable**** ****region**** sequences upstream of human lambda1 constant region CH1 and DNA fragment encoding the mature GM-CSF peptide to the 3' to the CH3 exon. P3 plasmacytoma cells were transfected with the light and heavy chain vectors by electroporation. Fusion protein was purified from culture media by chromatography in protein A columns and was separated on 7.5% non-reducing and 12.5% reducing SDS-polyacrylamide gels for Western blotting. In non-reducing gel, a single band approx 180 kD reacted with anti-human kappa, anti-human lambda1 and anti-GM-CSF antibodies. In the reducing gel, a ~74 kD protein reacted with anti-human lambda1 and anti-GM-CSF antibodies. The fusion protein induced proliferation of GM-CSF dependent NFS-60 cells and strongly bound to anti-HMFG monoclonal antibody (Ab1). These results suggest that the protein is a chimeric anti-****idiotype**** antibody consisting of ****11D10****

Search by Barb O'Bryen, STIC 308-4291

variable domains, human kappa and lambda constant domains. GM-CSF molecule is fused to lambda and is biologically active.

14/7/3 (Item 3 from file: 159)

DIALOG(R)File 159:Cancerlit

(c) format only 1999 Dialog Corporation. All rts. reserv.

01123124 95188202 MEDL/95188202

Induction of human breast cancer-specific antibody responses in cynomolgus monkeys by a murine monoclonal anti-****idiotype**** antibody.

Chakraborty M; Mukerjee S; ****Foon KA****; Kohler H; Ceriani RL; Bhattacharya-Chatterjee M

Lucille Parker Markey Cancer Center, Lexington, Kentucky.

Cancer Res; 55(7):1525-30 1995 ISSN 0008-5472 Journal Code: CNF

Contract/Grant No.: CA 47860, CA, NCI; CA 57165, CA, NCI

Languages: ENGLISH

Document Type: JOURNAL ARTICLE

We have generated and characterized a murine monoclonal anti-****idiotype**** (Id) antibody, designated ****11D10****, which biologically and antigenically mimics a distinct and specific epitope of the high molecular weight human ****milk**** ****fat**** ****globule**** primarily expressed by human breast and some other tumor cells at high density. This epitope is identified by mAb BrE1, which was used as the immunizing antibody or Ab1 to generate the anti-Id (Ab2) ****11D10****. ****11D10**** induced antitumor immune responses across species barriers, i.e., in mice and rabbits. In preclinical studies, cynomolgus monkeys were immunized with 2 mg of either ****11D10**** or the isotype- and allotype-matched control Ab2 3H1 after precipitation with aluminum hydroxide. All monkeys developed high titers of antibodies against the immunizing mouse immunoglobulin. Immunization with ****11D10**** induced anti-anti-****idiotype**** antibodies (Ab3) which reacted with breast cancer cell lines but not with control T-cell and melanoma cell lines. The Ab3 shared ****idiotypes**** with BrE1 (Ab1), as demonstrated by their ability to inhibit ****11D10**** binding to BrE1. The Ab3 obtained with ****11D10**** bound specifically to human ****milk**** ****fat**** ****globule**** antigen and competed with BrE1 for binding to breast cancer cell lines, suggesting that Ab1 and Ab3 may bind to the same epitope. In addition, Id-specific cellular immune responses were demonstrated in monkeys immunized with ****11D10**** by T-cell proliferation assays. These results indicate that aluminum hydroxide-precipitated anti-Id ****11D10**** can induce breast cancer-specific antibodies in nonhuman primates and can serve as a potential network antigen for breast cancer patients.

14/7/4 (Item 4 from file: 159)

DIALOG(R)File 159:Cancerlit

(c) format only 1999 Dialog Corporation. All rts. reserv.

01017336 95604648 ICDB/95604648

Induction of human breast cancer-specific antibody response in cynomolgus monkeys by a murine monoclonal anti-****idiotype**** antibody (Meeting abstract).

Chakraborty M; Sherratt AJ; ****Foon KA****; Cerianni R; Kohler H; Bhattacharya-Chatterjee M

Univ. of Kentucky, Lexington, KY 40536

Proc Annu Meet Am Assoc Cancer Res; 35:A2963 1994 ISSN 0197-016X

Languages: ENGLISH

Document Type: MEETING ABSTRACT

We have generated and characterized one murine monoclonal anti-****idiotype**** (Id) antibody, ****11D10**** which mimics biologically and antigenically a distinct and specific epitope of the high mol wt human Search by Barb O'Bryen, STIC 308-4291

****milk**** ****fat**** ****globule**** (HMFG) primarily expressed by human breast and some other tumor cells at high density. This epitope is identified by mAb MC10 (BrE1) which was used as the immunizing antibody or Ab1 to generate anti-Id (Ab2) ****11D10****. Cynomolgus monkeys were immunized with either ****11D10**** or control Ab2 3H1 after precipitation with alum at 2 mg dose. All monkeys developed high titers of antibodies against mouse immunoglobulin. Immunization with ****11D10**** induced monkey antibodies (Ab3) which reacted with breast cancer cell lines but not with control melanoma cell line. The Ab3 shared idiotypes with BrE1 (Ab1) as demonstrated by their ability to inhibit ****11D10**** binding to BrE1. The Ab3 obtained with ****11D10**** bound specifically to HMFG antigen and competed with BrE1 for binding to breast cancer cell lines suggesting that Ab1 and Ab3 may bind to the same epitope. In addition, Id-specific cellular immune responses were obtained in monkeys immunized with ****11D10**** by T cell proliferation assays. These results indicate that alum precipitated anti-Id ****11D10**** can induce breast cancer specific antibodies in non-human primates and can serve as a network antigen for breast cancer patients.

14/7/5 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal
(c) 1999 INIST/CNRS. All rts. reserv.

12074444 PASCAL No.: 95-0275226
Induction of human breast cancer-specific antibody responses in cynomolgus monkeys by a murine monoclonal anti-****idiotype**** antibody
MALA CHAKRABORTY; SONJOY MUKERJEE; ****FOON K A****; KOEHLER H; CERIANI R L; MALAYA BHATTACHARYA-CHATTERJEE

Lucille Parker Markey cancer cent., Lexington KY 40536, USA
Journal: Cancer research : (Baltimore), 1995, 55 (7) 1525-1530
ISSN: 0008-5472 CODEN: CNREA8 Availability: INIST-5088;
354000056273290240

No. of Refs.: 20 ref.

Document Type: P (Serial) ; A (Analytic)

Country of Publication: USA

Language: English

We have generated and characterized a murine monoclonal anti-****idiotype**** (Id) antibody, designated ****11D10****, which biologically and antigenically mimics a distinct and specific epitope of the high molecular weight human ****milk**** ****fat**** ****globule**** primarily expressed by human breast and some other tumor cells at high density. This epitope is identified by mAb BrE1, which was used as the immunizing antibody or Ab1 to generate the anti-Id (Ab2) ****11D10****. ****11D10**** induced antitumor immune responses across species barriers, i.e., in mice and rabbits. In preclinical studies, cynomolgus monkeys were immunized with 2 mg of either ****11D10**** or the isotype- and allotype-matched control Ab2 3H1 after precipitation with aluminum hydroxide. All monkeys developed high titers of antibodies against the immunizing mouse immunoglobulin. Immunization with ****11D10**** induced anti-anti-****idiotype**** antibodies (Ab3) which reacted with breast cancer cell lines but not with control T-cell and melanoma cell lines. The Ab3 shared ****idiotypes**** with BrE1 (Ab1), as demonstrated by their ability to inhibit ****11D10**** binding to BrE1. The Ab3 obtained with ****11D10**** bound specifically to human ****milk**** ****fat**** ****globule**** antigen and competed with BrE1 for binding to breast cancer cell lines, suggesting that Ab1 and Ab3 may bind to the same epitope. In addition, Id-specific cellular immune responses were demonstrated in monkeys immunized with ****11D10**** by T-cell proliferation assays. These results indicate that aluminum hydroxide-precipitated anti-Id ****11D10**** can induce breast cancer-specific antibodies in nonhuman primates and can serve as a potential network antigen for breast cancer patients.

Search by Barb O'Bryen, STIC 308-4291

14/7/6 (Item 1 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)
(c) 1999 BIOSIS. All rts. reserv.

11856920 BIOSIS NO.: 199900103029

Immune responses in breast cancer patients treated with an anti-
*****idiotype**** antibody vaccine that mimics human ****milk****
*****fat**** ****globule**** (HMFG) membrane antigen.

AUTHOR: Bhattacharya-Chatterjee Malaya(a); Das Ruma; Sen Goutam; Baral
Rathindranath; Ceriani Roberto L; Munn Rita K; ****Foon Kenneth A****
AUTHOR ADDRESS: (a)Lucille Parker Markey Cancer Cent., Univ. Ky.,
Lexington, KY 40536, USA

JOURNAL: Anticancer Research 18 (6C):p4835-4836 Nov.-Dec., 1998

CONFERENCE/MEETING: Sixth International Conference of Anticancer Research
Kallithea, Halkidiki, Greece October 21-25, 1998

ISSN: 0250-7005

RECORD TYPE: Citation

LANGUAGE: English

14/7/7 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
(c) 1999 Derwent Publ Ltd. All rts. reserv.

0214363 DBA Accession No.: 97-09484 PATENT
Monoclonal anti-*****idiotype**** antibody ****11D10**** - monoclonal
antibody production by hybridoma construction for use in vaccine and
*****milk**** ****fat**** ****globule**** associated disease e.g. mamma
cancer therapy

AUTHOR: ****Chatterjee M****; ****Foon K A****; ****Chatterjee S K****

CORPORATE SOURCE: Lexington, KY, USA.

PATENT ASSIGNEE: Univ.Kentucky 1997

PATENT NUMBER: WO 9722699 PATENT DATE: 970626 WPI ACCESSION NO.:
97-341690 (9731)

PRIORITY APPLIC. NO.: US 575762 APPLIC. DATE: 961213

NATIONAL APPLIC. NO.: WO 96US20757 APPLIC. DATE: 961219

LANGUAGE: English

ABSTRACT: An anti-*****idiotype**** monoclonal antibody (AI-MAb)
****11D10**** produced by ****hybridoma**** cell line ATCC
****12020**** or progeny of this cell line is claimed. Also claimed
are: the AI-MAb with a label; ****hybridoma**** ATCC ****12020**** and
its progeny; purified AI-MAb from the ****hybridoma**** ; a
polynucleotide encoding a protein with immunological activity of AI-MAb
****11D10****, where the polypeptide comprises at least 5 (at least 15)
contiguous amino acids of a heavy or light chain ****variable****
****region**** of ****11D10**** (DNA sequences disclosed); a cloning or
expression vector, especially vaccinia virus vector, containing the
polynucleotide; a host cell containing the polynucleotide; a protein
with immunological activity of AI-MAb ****11D10**** and comprising the
light or heavy chain ****variable**** ****region****; the protein which
has a region homologous to human ****milk**** ****fat****
****globule****; a fusion protein of the claimed protein and a cytokine
(granulocyte-macrophage colony stimulating factor or interleukin-2); a
humanized antibody; a polymeric ****11D10**** protein; a pharmaceutical
composition of the AI-MAb or the polypeptide; a recombinant vaccine; a
nucleic acid vaccine; use of the vaccine or protein for mamma cancer
therapy; etc. (130pp)

?

? s (s4 or s5 or s11) not s10

13 S4
1 S5
25 S11
11 S10

S15 17 (S4 OR S5 OR S11) NOT S10 *previously printed*

? rd

>>>Duplicate detection is not supported for File 347.

>>>Records from unsupported files will be retained in the RD set.

...completed examining records

S16 9 RD (unique items)

? t s16/7/1-9

16/7/1 (Item 1 from file: 159)

DIALOG(R)File 159:Cancerlit

(c) format only 1999 Dialog Corporation. All rts. reserv.

01128036 95228057 MEDL/95228057

Anti-BA46 monoclonal antibody Mc3: humanization using a novel positional consensus and in vivo and in vitro characterization.

Couto JR; Blank EW; Peterson JA; Ceriani RL

Cancer Research Fund of Contra Costa, Walnut Creek, California 94596,
USA.

Cancer Res; 55(8):1717-22 1995 ISSN 0008-5472 Journal Code: CNF

Languages: ENGLISH

Document Type: JOURNAL ARTICLE

Mc3 is a murine mAb that is highly effective in treating breast tumors in experimental radioimmunotherapy. Mc3 binds to BA46, a 46-kDa glycoprotein of the human ****milk**** ****fat**** ****globule**** membrane that is also expressed in breast carcinoma cells. We cloned and sequenced cDNAs encoding the ****variable**** ****regions**** of Mc3 and constructed an IgG1, kappa human/mouse chimeric antibody. We then humanized the ****variable**** ****regions**** of Mc3 using a positional consensus method and retaining residues that might either contact the ****complementarity****-determining ****regions**** or the opposite chain. This positional consensus is novel in that it does not include residues with buried side chains. Humanized Mc3 retained full binding affinity, and fully competes with murine Mc3 for antigen binding. Humanized and murine 131I-labeled Mc3 behaved identically in athymic nu/nu mice biodistribution studies. The tumor uptake levels for both antibodies increased over a period of 4 days within a range of 13-20% of the injected dose per g with extremely favorable tumor:normal ratios. Also, a single therapeutic dose of 131I-labeled humanized Mc3 in the same animal model reduced the average tumor size and produced one of five cures while in the uninjected control tumor growth continued unabated. We believe that these results justify the implementation of Phase I human clinical trials for imaging and radioimmunotherapy of breast cancer.

16/7/2 (Item 2 from file: 159)

DIALOG(R)File 159:Cancerlit

(c) format only 1999 Dialog Corporation. All rts. reserv.

01104208 96053292 MEDL/96053292

The production and preclinical characterization of a chimeric anti-breast-cancer antibody, cBC2.

Sutton VR; Burgess J; Pietersz GA; Li WJ; McKenzie IF; Trapani JA
Search by Barb O'Bryen, STIC 308-4291

Austin Research Institute, Austin Hospital, Heidelberg, Victoria, Australia.

Ther Immunol; 1(2):83-93 1994 ISSN 0967-0149 Journal Code: CCS
Languages: ENGLISH

Document Type: JOURNAL ARTICLE

A chimeric (mouse-human) BC2 antibody (cBC2) was produced which may be used in the diagnosis and treatment of breast cancer. The BC2 ****variable**** ****region**** genes were amplified by polymerase chain reaction (PCR), using oligonucleotide primers homologous to the framework sequences of mouse VH and V kappa genes. The PCR products were used to create cBC2 expression vectors containing the mouse BC2 VH and V kappa and human constant region (IgG1 and K) genes. Chimeric antibody was produced following transfection of these constructs into Sp2/0 myeloma cells. Binding assays in vitro demonstrated that cBC2 had the same specificity for human ****milk**** ****fat**** ****globule**** membrane (HMFGM) and MUC1+ cells as mBC2, and bound antigen with a similar affinity (cBC2, Ka 5.53 +/- 2.09 x 10(8); mBC2, Ka 1.44 +/- 0.98 x 10(9)). Functionally, only cBC2 (5-25 micrograms ml-1), was able to mediate antibody-dependent cellular cytotoxicity (ADCC) with human effector cells, with 25% maximal specific lysis of MUC1+ cells at an E/T ratio of 100:1. Human complement-mediated lysis was minimal (10-15% specific lysis) with both mBC2 and cBC2. Neither cBC2 nor mBC2 was able to inhibit tumour growth in vivo in the absence of covalently coupled anticancer drugs. However, biodistribution studies demonstrated that both antibodies preferentially targeted MUC1+ tumour cells, with 17% of the injected dose of cBC2, as compared to 27% of mBC2, localized to the MUC1+ tumour at 24 h (less than 6% detected in any other tissue).

16/7/3 (Item 1 from file: 358)
DIALOG(R)File 358:Current BioTech Abs
Royal Soc Chem & DECHEMA . All rts. reserv.

063198 CBA Acc. No.: 12-07-004881 DOC. TYPE: Patent
Anti-human milk fat globule humanized antibodies.
AUTHOR: Adair, J. R.; Ownes, R. J.; Baker, T. S.; Lyons, A. H.; Hamann, P. R.; ET AL.

CORPORATE SOURCE: Celltech Ltd., Slough, UK

CODEN: PIXXD2

PATENT NUMBER: WO 9306231

PATENT APPLICATION: GB 9120467/7 (910926)

PUBLICATION DATE: 1 Apr 1993 (930401) LANGUAGE: English

ABSTRACT: Humanized antibody molecules are disclosed, which have specificity for human ****milk**** ****fat**** ****globules****. The antibodies have an antigen binding site wherein at least one of the ****complementarity**** determining ****regions**** of the variable domain is derived from mouse monoclonal antibody CTM01 and the remaining immunoglobulin-derived parts are derived from human immunoglobulin. The humanized antibody molecules may be chimeric humanized antibodies or CDR-grafted humanized antibodies and are preferably produced using recombinant DNA techniques. They may be conjugated to an effector or reporter molecule, particularly methyltrithio anti-tumour agents and are useful for in vivo diagnosis and therapy.

16/7/4 (Item 1 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)
(c) 1999 BIOSIS. All rts. reserv.

10133819 BIOSIS NO.: 199698588737
Endoplasmic reticulum protein Hsp47 binds specifically to the N-terminal
Search by Barb O'Bryen, STIC 308-4291

globular domain of the amino-propeptide of the procollagen I alpha-1(I)-chain.

AUTHOR: Hu Geng; Gura Trisha; Sabsay Boris; Sauk John; Dixit N; Veis Arthur
(a)

AUTHOR ADDRESS: (a)Northwestern Univ., 303 E. Chicago Ave., Chicago, IL
60611, USA

JOURNAL: Journal of Cellular Biochemistry 59 (3):p350-367 1995

ISSN: 0730-2312

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: Hsp47, an endoplasmic reticulum-resident heat shock protein in fibroblasts, has gelatin-binding properties. It had been hypothesized that it functions as a chaperone regulating procollagen chain folding and/or assembly, but the mechanism of the hsp47-procollagen I interaction was not clear. Hsp47 could bind to both denatured and native procollagen I. A series of competition studies were carried out in which various collagens and collagen domain peptides were incubated with ³⁵(S)-methionine-labeled murine 3T6 cell lysates prior to mixing with gelatin-Sepharose 4B beads. The gelatin-bound proteins were collected and analyzed by gel electrophoresis and autoradiography. Collagenase digested procollagen I had the same effect as denatured intact procollagen, indicating that the propeptides were the major interaction sites. The addition of intact pro alpha-1 (I)-N-propeptide at 25 μg/ml completely inhibited hsp47 binding to the gelatin-Sepharose. Even the pentapeptide VPTDE, residues 86-90 of the pro alpha-1(I)-N-propeptide, inhibits hsp47-gelatin binding. These data implicating the pro alpha-1(I)-N-propeptide domain were confirmed by examination of polysome-associated pro α chains. The nascent pro alpha-1(I)-chains with intact N-propeptide regions could be precipitated by monoclonal hsp47 antibody ****11D10****, but could not be precipitated by monoclonal anti-pro alpha-1(I)-N-propeptide antibody SP1.D8 unless dissociated from the hsp47. GST-fusion protein constructs of residues 23-108 (NP1), 23-151 (NP2), and 23-178 (NP3) within the pro α1 (I)-N-propeptide were coupled to Sepharose 4B and used as affinity beads for collection of hsp47 from 3T6 cell lysates. NP1 and NP2 both showed strong specific binding for lysate hsp47. Finally, the interaction was studied in membrane-free *in vitro* cotranslation systems in which the complete pro alpha-1(I)- and pro alpha-2(I)-chain RNAs were translated alone and in mixtures with each other and with hsp47 RNA. There was no interaction evident between pro alpha-2(I)-chains and hsp47, whereas there was strong interaction between pro alpha-1(I)-chains and nascent hsp47. SP1.D8 could not precipitate pro alpha-1(I)-chains from the translation mix if nascent hsp47 was present. These data all suggest that if hsp47 has a "chaperone" role during procollagen chain processing and folding it performs this specific role via its preferential interaction with the pro alpha-1(I) chain, and the pro alpha-1(I) amino-propeptide region in particular.

16/7/5 (Item 1 from file: 73)

DIALOG(R)File 73:EMBASE

(c) 1999 Elsevier Science B.V. All rts. reserv.

05823718 EMBASE No: 1994245129

Characterisation of a recombinant Fv fragment of anti-MUC1 antibody HMFG1
Davies G.M.; Bosze S.; Hudecz F.; Price M.R.; Tendler S.J.B.
Cancer Research Laboratory, University of Nottingham, Nottingham NG7 2RD
United Kingdom

Cancer Letters (CANCER LETT.) (Ireland) 1994, 82/2 (179-184)
Search by Barb O'Bryen, STIC 308-4291

CODEN: CALED ISSN: 0304-3835
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

A recombinant Fv (variable fragment) has been produced for the murine monoclonal antibody HMFG1. This antibody was raised against human ****milk**** ****fat**** ****globules**** and reacts with an epitope (PDTR) in the protein core of MUC1 mucins, which are up-regulated in human breast and other carcinomas. Binding specificity of the Fv fragment has been demonstrated through immunoaffinity purification, and by radioimmunoassay. The affinity constants for this Fv fragment and for the proteolytically produced Fab (antigen binding fragment) of the related humanised antibody HuHMFG1 were determined by monitoring the fluorescence quenching of the antibody fragments whilst adding aliquots of MUC1 related antigenic peptides KAPDTRPAPG and VTSAPDTRPAPG. Using these techniques it has been demonstrated that the products of these different methods of antibody fragmentation are comparable, and suitable for solution structure analysis using nuclear magnetic resonance (NMR) spectroscopy.

16/7/6 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
(c) 1999 Derwent Publ Ltd. All rts. reserv.

0196138 DBA Accession No.: 96-06909 PATENT
Recombinant Mc3 antibody which binds BA46 antigen of human ****milk****
****fat**** ****globule**** - chimeric antibody and humanized antibody
engineering for use in mamma carcinoma diagnosis and therapy
AUTHOR: Do Couto F J; Ceriani R I; Peterson J A
CORPORATE SOURCE: Walnut Creek, CA, USA.
PATENT ASSIGNEE: Cancer-Res.Fund-Contra-Costa 1996
PATENT NUMBER: WO 9608565 PATENT DATE: 960321 WPI ACCESSION NO.:
96-179941 (9618)
PRIORITY APPLIC. NO.: US 307868 APPLIC. DATE: 940916
NATIONAL APPLIC. NO.: WO 95US11683 APPLIC. DATE: 950914
LANGUAGE: English
ABSTRACT: A new recombinant Mc3 antibody (Ab) which binds to human ****milk**** ****fat**** ****globule**** (HMFG) BA46 antigen comprises at least 1 modified ****variable**** ****region**** (VR) selected from: a modified heavy chain VR of the mouse disclosed protein sequence with 1-30 amino acid residues substituted; a modified light chain VR having the mouse Mc3 protein sequence with 1-30 amino acids substituted; or a derivative of one of the modified VRs with at least one residue of the VR not needed for binding to the antigen deleted or in which at least 1 of the ****complementarity**** determining ****region**** residues has been modified without disrupting antigen binding. Also new are: a humanized antibody comprising mouse Mc3 with at least 1 amino acid substitution in the heavy or light chain VR from the human consensus sequence; a chimeric antibody with human constant region; a pharmaceutical composition of recombinant Mc3 for mamma carcinoma therapy; DNA encoding the modified VR; detecting HMFG antigen in disease diagnosis using the Ab; use of the Ab in therapeutic delivery; and humanizing a non-human Ab by replacing framework amino acid residues in the VRs of the Ab with human equivalents. (91pp)

16/7/7 (Item 2 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
(c) 1999 Derwent Publ Ltd. All rts. reserv.

0166614 DBA Accession No.: 94-09165 PATENT
Search by Barb O'Bryen, STIC 308-4291

Mamma fat globule chimeric antibody human, mouse monoclonal antibody production - DNA sequence and antitumor recombinant vaccine application in tumor therapy

PATENT ASSIGNEE: Cancer-Res.Fund-Contra-Costa 1994

PATENT NUMBER: WO 9411508 PATENT DATE: 940526 WPI ACCESSION NO.: 94-183509 (9422)

PRIORITY APPLIC. NO.: US 128015 APPLIC. DATE: 930928

NATIONAL APPLIC. NO.: WO 93US11316 APPLIC. DATE: 931115

LANGUAGE: English

ABSTRACT: The following are claimed: (1) an isolated protein which selectively binds to an antigen on the surface of, or in the cytoplasm of neoplastic cells, or that is released by the cell, which has at least 1 ****variable**** ****region**** of the light or heavy chains of an antibody which binds to human ****milk**** ****fat**** ****globule****; (2) a glycosylated protein which selectively binds to an antigen present on the surface of, or in the cytoplasm of neoplastic cells, which contains (1); (3) an antitumor hybrid protein comprising at least one (1) and at least 1 effector agent operatively linked to the protein; (4) a method for inhibiting the growth or reducing the size of a primary or metastasized tumor by administering an effective amount of (3); (5) a composition containing an oligonucleotide (OG) encoding (1), a composition containing a vector harboring the OG, a composition containing a host cell (ATCC 11200, HB 11201) transfected with the vector and a composition containing an oligoribonucleotide encoding (I); (6) monoclonal antibodies specific for the antitumor antibody; and (7) a cytostatic vaccine comprising an ****antiidiotype**** peptide and a carrier. (54pp)

16/7/8 (Item 3 from file: 357)

DIALOG(R)File 357:Derwent Biotechnology Abs
(c) 1999 Derwent Publ Ltd. All rts. reserv.

0148862 DBA Accession No.: 93-06914 PATENT

Anti-human ****milk**** ****fat**** ****globule**** humanized, chimeric monoclonal antibody production using a vector and methyltrithio anti-tumor agent conjugate - humanized antibody production by antibody engineering and application in mamma carcinoma, ovary carcinoma and lung carcinoma diagnosis and therapy

PATENT ASSIGNEE: Celltech 1993

PATENT NUMBER: EP 534742 PATENT DATE: 930331 WPI ACCESSION NO.: 93-102837 (9313)

PRIORITY APPLIC. NO.: GB 9120467 APPLIC. DATE: 910926

NATIONAL APPLIC. NO.: EP 92308680 APPLIC. DATE: 920924

LANGUAGE: English

ABSTRACT: In a new humanized antibody molecule (HAM) which has specificity for human ****milk**** ****fat**** ****globule**** (HMFG) and having an antigen binding site, at least 1 of the ****complementarity**** determining ****regions**** (CDRs) of the variable domain is derived from the mouse monoclonal antibody CTM01 (CTM01 MAb) and the remaining immunoglobulin (Ig)-derived parts of the HAM are derived from a human Ig (e.g. IgG4 or an analog). The HAM may be chimeric humanized antibody or Fab, Fab', (Fab')2 or Fv fragment or a single chain antibody and is preferably produced by recombinant DNA techniques. Also claimed is a process for producing a HAM comprising: (1) producing an operon in an expression vector with a DNA sequence encoding an antibody heavy or light chain where at least 1 of the CDRs of the variable domain is derived from the CTM01 MAb and the rest is derived from a human Ig; (2) transfecting a bacterial or mammal host cell with the vector; and (3) culturing the transfected cell line to produce the HAM. The HAMs may be conjugated to an effector or reporter molecule, especially methyltrithio anti-tumor agents, and are useful for mamma carcinoma

Search by Barb O'Bryen, STIC 308-4291

etc. diagnosis and therapy. (59pp)

16/7/9 (Item 4 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
(c) 1999 Derwent Publ Ltd. All rts. reserv.

0134961 DBA Accession No.: 92-07453 PATENT
Synthetic specific binding agent and reshaped humanized antibody - having specificity for human polymorphic epithelial mucin and used to therapy and diagnosis of PEM-producing cancer; antibody engineering and expression in Escherichia coli and DNA sequence

PATENT ASSIGNEE: Unilever 1992

PATENT NUMBER: WO 9204380 PATENT DATE: 920319 WPI ACCESSION NO.: 92-114305 (9214)

PRIORITY APPLIC. NO.: GB 9019553 APPLIC. DATE: 900907

NATIONAL APPLIC. NO.: WO 91GB1511 APPLIC. DATE: 910905

LANGUAGE: English

ABSTRACT: The following are claimed: a synthetic specific binding agent (I) specific for human polymorphic epithelial mucin (PEM), conferred by 1 of 6 specified peptide sequences; a reshaped humanized antibody (II) or fragment specific for PEM; (I) having at least 1 heavy-chain and at least 1 light-chain ****variable**** ****region**** ****complementarity**** determining ****region**** (CDR) of specific sequence; PEM from human ****milk**** ****fat**** ****globule**** (HMFG); (I) or (II) having specificity equivalent to that of the gamma-, kappa anti-HMFG monoclonal antibody HMFG1; a stable host line producing (I) or (II) that incorporates a gene encoding (I) or (II), the gene having 1 of 6 specific sequences; plasmid pSVgpt-HuVHHMFG1-HuIgG1 and plasmid pSVneo-HuV_kHMG1-HuCk and their use to produce (I) or (II); Escherichia coli NCTC 12411 and NCTC 12412; DNA sequences encoding human antibody heavy of light chain ****variable**** ****region****; reshaped heavy and light chain ****variable**** ****regions**** specific for HMFG; (I) or (II) comprising at least 1 ****variable**** ****region**** ; (I) or (II) linked to an agent that retards or kills cancer cells, or to a label; and use of (I) or (II) for human cancer diagnosis, therapy or imaging. (62pp)

THIS PAGE BLANK (USPTO)